## (19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 26 May 2005 (26.05.2005)

PCT

## (10) International Publication Number WO 2005/046365 A1

(51) International Patent Classification7:

A24C 5/34

(21) International Application Number:

PCT/IB2004/003766

(22) International Filing Date:

11 November 2004 (11.11.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: BO2003A000684

17 November 2003 (17.11.2003)

- (71) Applicant (for all designated States except US): G.D. S.P.A. [IT/IT]; Via Battindarno, 91, I-40133 Bologna (IT).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): BENCIVENNI, Marco [IT/IT]; Via Enzo Ferrari, 12, I-40127 Bologna (IT). TREVISONNO, Eura [IT/IT]; Via Serenari, 4, I-40013 Castelmaggiore (IT). CERATI, Luca [IT/IT]; Via Vasari, 26/3, I-40128 Bologna (IT).

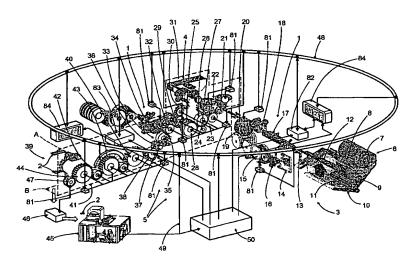
- (74) Agents: BIANCIARDI, Ezio et al.; Bugnion S.p.A., Via Goito, 18, I-40126 Bologna (IT).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

with international search report

[Continued on next page]

(54) Title: A SYSTEM FOR MONITORING AND CONTROLLING MACHINES USED IN THE MANUFACTURE OF TO-**BACCO PRODUCTS** 



(57) Abstract: Tobacco products (2), typically cigarettes, are manufactured on a line (1) including a cigarette maker (3) and a filter tip attachment machine (4), both equipped with a number of production devices and units connected to respective master control units (82, 83) and visual display units (84). Key characteristics of sample tobacco products (2) are tested by an auxiliary inspection unit (45) forming part of a monitoring and control system associated with the manufacturing line (1), and connected up to a common interface network (48) so that signals reflecting the monitored characteristics can be fed back to a number of control units (81) associated respectively with the devices and the units of the line (1) on which the characteristics in question depend, and programmed to pilot corrective actions in response to the feedback signal.



## WO 2005/046365 A1



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.